

WHAT IS CLAIMED IS:

1. A semiconductor integrated circuit device,
comprising:

a first insulating film formed over a semiconductor
substrate;

a first interconnection serving as a wiring line, buried
in a surface of said first insulating film and including a
first conductor film and a second conductor film having copper
as a main component, wherein said first conductor film is
interposed between said second conductor film and said first
insulating film and includes a function to suppress diffusion
of copper;

a second insulating film formed over said first
interconnection, said second insulating film including a
function to suppress diffusion of copper;

a third insulating film formed over said second
insulating film;

a second interconnection serving as a wiring line,
including aluminum as a main component and formed over said
third insulating film; and

a connecting conductor buried in said second insulating
film and third insulating film, wherein said connecting
conductor is contacting said first interconnection and said
second interconnection and includes a function to suppress
diffusion of copper,

a fourth insulating film formed over said second

interconnection;

a third interconnection connecting with said second interconnection through said fourth insulating film by a connecting portion formed therein, including aluminum as a main component and formed over said fourth insulating film, and

wherein said third interconnection includes an electrode extending portion electrically connected to a pad portion.

2. A semiconductor integrated circuit device according to claim 1, wherein said second insulating film comprises a nitride film.

3. A semiconductor integrated circuit device according to claim 1, wherein said first conductor film has a thickness smaller than that of said second conductor film.

4. A semiconductor integrated circuit device according to claim 1, wherein said first conductor film is comprised of one selected from the group consisting of tungsten, titanium nitride, titanium, tantalum, tungsten nitride, tantalum nitride, tungsten silicide nitride, titanium silicide nitride and tantalum silicide nitride.

5. A semiconductor integrated circuit device according to claim 1, wherein said connecting conductor is comprised of one selected from the group consisting of tungsten, titanium nitride, titanium, tantalum, tungsten nitride, tantalum nitride, tungsten silicide nitride, titanium silicide nitride and tantalum silicide nitride.

6. A semiconductor integrated circuit device according to claim 1, further comprising a passivation film over said third interconnection.

7. A semiconductor integrated circuit device according to claim 6, wherein said electrode extending portion includes said pad portion and is electrically connected with a bonding wire via an opening formed in said passivation film.

8. A semiconductor integrated circuit device according to claim 6, wherein said electrode extending portion includes said pad portion and is electrically connected with a bump electrode via an opening formed in said passivation film.

9. A semiconductor integrated circuit device according to claim 1, wherein said third interconnection is connected with said second interconnection via a connecting portion formed as a part of said third interconnection.

10. A semiconductor integrated circuit device according to claim 1, wherein said third interconnection is connected with said second interconnection via a connecting portion formed by a same material as said connecting conductor.

11. A semiconductor integrated circuit device,
comprising:

a first insulating film formed over a semiconductor substrate;

a first interconnection serving as a wiring line, including copper as a main component and buried in a surface of said first insulating film;

a second insulating film formed over said first interconnection;

a second interconnection serving as a wiring line, including aluminum as a main component and formed over said second insulating film;

a connecting conductor buried in said second insulating film and electrically connecting said first interconnection and said second interconnection, wherein said first interconnection is covered with a barrier layer to suppress diffusion of copper;

a third insulating film formed over said second interconnection;

a third interconnection connecting with said second interconnection through said third insulating film by a

connecting portion formed therein, including aluminum as a main component and formed over said third insulating film, and wherein said third interconnection includes an electrode extending portion electrically connected to a pad portion.

12. A semiconductor integrated circuit device according to claim 11, wherein said barrier layer comprises a first barrier film interposed between said first insulating film and said first interconnection and a second barrier film interposed between said first interconnection and said second insulating film.

13. A semiconductor integrated circuit device according to claim 12, wherein said first barrier film is comprised of one selected from the group consisting of tungsten, titanium nitride, titanium, tantalum, tungsten nitride, tantalum nitride, tungsten silicide nitride, titanium silicide nitride and tantalum silicide nitride.

14. A semiconductor integrated circuit device according to claim 12, wherein said second barrier layer is comprised of a silicon nitride film.

15. A semiconductor integrated circuit device according to claim 11, wherein said connecting conductor includes a function to suppress diffusion of copper.

16. A semiconductor integrated circuit device according to claim 15, wherein said connecting conductor is comprised of one selected from the group consisting of tungsten, titanium nitride, titanium, tantalum, tungsten nitride, tantalum nitride, tungsten silicide nitride, titanium silicide nitride and tantalum silicide nitride.

17. A semiconductor integrated circuit device according to claim 11, further comprising a passivation film over said third interconnection.

18. A semiconductor integrated circuit device according to claim 17, wherein said electrode extending portion includes said pad portion and is electrically connected with a bonding wire via an opening formed in said passivation film.

19. A semiconductor integrated circuit device according to claim 17, wherein said electrode extending portion includes said pad portion and is electrically connected with a bump electrode via an opening formed in said passivation film.

20. A semiconductor integrated circuit device according to claim 11, wherein said third interconnection is connected with said second interconnection via a connecting portion formed as a part of said third interconnection.

21. A semiconductor integrated circuit device according to claim 11, wherein said third interconnection is connected with said second interconnection via a connecting portion formed by a same material as said connecting conductor.